

# Claims

[c1] What is claimed is:

1.A method for forming a linked list with a memory in an electronic device, comprising:

performing a built-in self test (BIST) on the memory; and forming the linked list according to a result of the BIST; wherein if the memory includes a defective section, the linked list does not have a correspondence to the defective section.

[c2] 2.The method of claim 1 further comprising:

storing the result of the BIST into a test result memory.

[c3] 3. The method of claim 1 wherein the linked list is dynamically updated as long as the defective section is detected through performing the BIST on the memory.

[c4] 4.The method of claim 1 wherein the memory, which the BIST is performed on, is a header table for storing the linked list.

[c5] 5.The method of claim 1 wherein the memory, which the BIST is performed on, is a packet buffer which the linked list points to.

- [c6] 6.The method of claim 1, wherein the electronic device is a switch.
- [c7] 7.The method of claim 1, wherein the electronic device is a router.
- [c8] 8.A method for forming a linked list with memory in an electronic device, comprising:  
performing a built-in self test (BIST) on a header table of the electronic device;  
performing a BIST on a packet buffer of the electronic device; and  
forming the linked list of the electronic device according to at least a result of the BISTs;  
wherein if at least one of the header table and the packet buffer includes a defective storage portion, the linked list does not have a correspondence to the defective storage portion.
- [c9] 9.The method of claim 8 further comprising:  
storing the result of at least one of the BISTs into a test result memory.
- [c10] 10.The method of claim 8 wherein the linked list is dynamically updated as long as the defective storage portion is detected through performing the BIST on the header table or the packet buffer.

[c11] 11.The method of claim 8 wherein the electronic device is a switch.

[c12] 12.The method of claim 8 wherein the electronic device is a router.